Macromastix ferruginosa ruapehuensis, subsp. n.

Typical material of this fly was sent to Mr. Edwards for comparison with his types of *ferruginosa.* He reports that "The *Macromastix* is probably a subspecies of my *ferruginosa*. differing in the brighter yellow head, the rather lighter colour of the thorax, rendering the pale patch on the pleuræ rather less conspicuous, the larger pale markings on the abdomen, the clearer wing-membrane, and the shorter stem to cell M_1; perhaps also the legs are shorter." The above diagnosis covers the chief points in which this fly differs from *ferruginosa*, Edwards. I am very greatly indebted to Mr. Edwards for making this and other comparisons of material.

Hab. New Zealand (North Island).

Holotype, ♂, Mt. Ruapehu, altitude 4000–5000 feet, January 1921 (*M. N. Watt*).

Paratopotypes, 20 ♂♂.

XVIII.—*A Filariid from the African Elephant.*

By H. A. BAYLIS, M.A., D.Sc.

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ONE of the collections of nematodes and other parasites recently forwarded to the British Museum (Natural History) by Mr. A. Loveridge included some material collected by Mr. C. B. Goss from two elephants shot in the Lindi district of Tanganyika Territory. One batch of this material contained, besides several other species, three female specimens of a *Filaria* (sens. lat.), and as no adult *Filaria* * has yet been recorded from either the African or the Indian elephant, it is thought desirable to give a brief account of this form. The absence of a male is regrettable, but the female has certain characters which will probably prove sufficient for identification should the worm be collected again. The position in the host is given on the collector's label as the "stomach." It may probably be assumed, however, that the Filariids came from the peritoneum or peritoneal cavity, in the neighbourhood of the stomach. The other species in the same batch were determined as *Grammocephalus clathratus*

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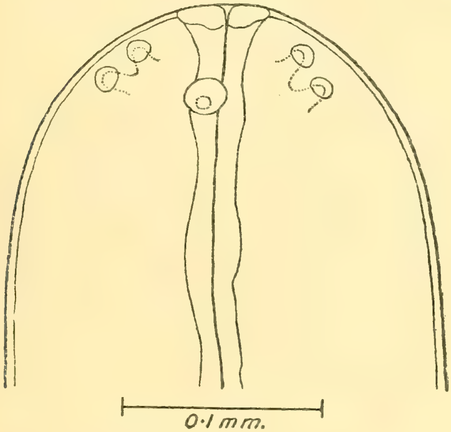
* With the exception of "*Filaria*" *smithii*, Cobbold, now referred to the genus *Parabronema*.

(Baird, 1868), *Quilonia apiensis* (Gedoelst, 1916), *Pteridopharynx africana*, Lane, 1921, and *Amira sameera*, Khalil, 1922. Of these the last two are recorded from the "stomach," while *Q. apiensis* occurs normally in the intestine and *Grammocephalus* in the bile-ducts.

Filaria gossi, sp. n.

The lengths of the three female specimens are about 115, 120, and 136 mm. respectively, and the greatest thickness about 0·9 mm. The worms taper much more markedly at the posterior than at the anterior end. They have much the general appearance of a *Setaria*, but are without peristomial armature. Both anterior and posterior extremities are bluntly rounded. The head (fig. 1) bears, apparently, ten papillæ. The two largest of these are lateral, while the remaining eight are arranged in submedian pairs. Each of these pairs of papillæ arises by the bifurcation of a common pulp. The two button-like terminations lie one behind the other. The transverse cuticular striation is excessively fine, and only visible under a high magnification. The length of the tail is about 0·23 mm., and the posterior end is curled ventrally. The mouth is minute and without lips. The œsophagus is very slender and measures 1·55–1·75 mm. in

Fig. 1.

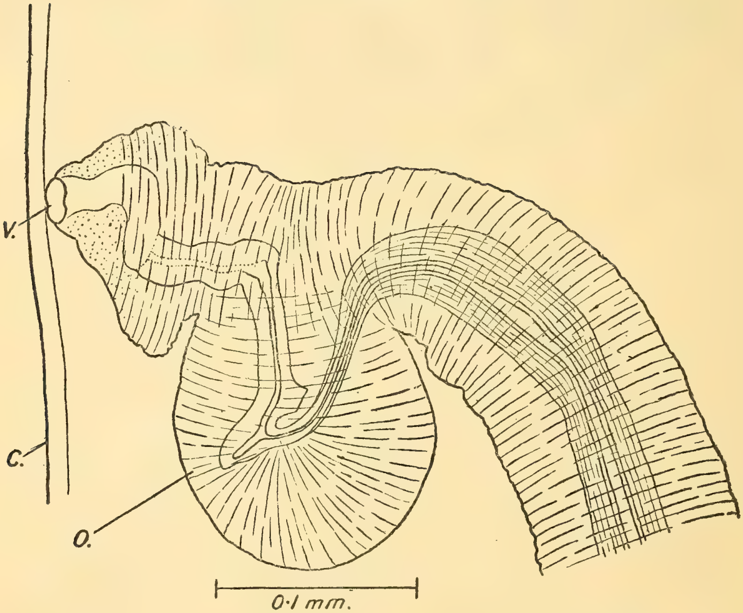


Filaria ossi. The head; lateral view.

length. It has very little muscular structure, and is not distinctly divided into two portions. Its anterior region, as far back as the nerve-ring, which is situated at 0·25 mm. from the extremity of the head, is rather more slender than the rest, and has apparently structureless walls. The lumen is very narrow. The intestine is also slender.

The vulva is situated on a slight prominence at 3·24–4·05 mm. from the anterior end. The vagina, the terminal portion of which runs posteriorly from the vulva, is long and muscular, and is disposed in two longitudinally-arranged loops before giving rise to the two parallel uterine branches, which run posteriorly. There is a remarkable muscular pouch or "ovejector" (fig. 2, *O.*) near the vulva, the lumen of the vagina, which has at this point a thick cuticular lining, passing into it with a V-shaped bend. This arrangement is almost exactly the same as that of *Habronema microstoma*, and resembles to a lesser extent that of *Parabronema*. The

Fig. 2.



Filaria gossi. Terminal portion of vagina; nearly lateral view. *C.*, cuticle of body; *O.*, muscular pouch or "ovejector"; *V.*, vulva.

tubular portion of the vagina has two coats of muscles, the inner longitudinal and the outer circular. The coils of the ovaries are confined to the posterior region of the body. The greater part of the uterine branches is filled with immense numbers of embryos, which measure about 0·275 mm. in length, have blunt squarish heads, and tapering, slightly hooked tails, and are apparently without a sheath.

A microfilaria has been recorded by Evans and Rennie from the blood of the Indian elephant, and it may be that it is the embryo of a form closely related to that here described from the African elephant. In view of the known relationships between other parasites of the two elephants, however, it is unlikely to be the same species.

It has been mentioned above that *Amira sameera*, Khalil, occurred in the same collection as the *Filaria*. This form has hitherto been known only from a single male in the British Museum, from an elephant from the Addo Bush, Cape Province. The present material consists of three females, in rather poor condition, which, from their general characters, appear probably to belong to the same species.

XIX.—*An Ascarid from the Sperm-whale.*

By H. A. Baylis, M.A., D.Sc.

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The British Museum (Natural History) recently received, through the kindness of Mr. E. B. Binnie, Stipendiary Magistrate, South Georgia, several specimens of an Ascarid from the stomach of a sperm-whale (*Physeter catodon*). The worms prove to belong to the genus *Anisakis*, Dujardin, 1845, and represent a species hitherto undescribed.

Anisakis physeteris, sp. n.

This is a fairly large, stout form. The males measure 70–90 mm. in length and about 3 mm. in thickness; the females 80–112 mm. and 4–4·5 mm. respectively. The cuticle has extremely fine transverse striations, the interval between them being only about 2 μ. The regular, broad cuticular bands, with prominent posterior edges, characteristic of some species of this genus, are here absent, but there are, in addition to the fine striations, some irregular transverse wrinkles. The lips are relatively small, and the neck,